

VVV	VVV	MMM	MMM	SSSSSSSSSSSS	LLL	IIIIIIII	0000000000	
VVV	VVV	MMM	MMM	SSSSSSSSSSSS	LLL	IIIIIIII	0000000000	
VVV	VVV	MMM	MMM	SSSSSSSSSSSS	LLL	IIIIIIII	0000000000	
VVV	VVV	MMMMMM	MMMMMM	SSS	LLL	III	000	000
VVV	VVV	MMMMMM	MMMMMM	SSS	LLL	III	000	000
VVV	VVV	MMMMMM	MMMMMM	SSS	LLL	III	000	000
VVV	VVV	MMM	MMM	SSS	LLL	III	000	000
VVV	VVV	MMM	MMM	SSS	LLL	III	000	000
VVV	VVV	MMM	MMM	SSS	LLL	III	000	000
VVV	VVV	MMM	MMM	SSSSSSSSSS	LLL	III	0000000000	
VVV	VVV	MMM	MMM	SSSSSSSSSS	LLL	III	0000000000	
VVV	VVV	MMM	MMM	SSSSSSSSSS	LLL	III	0000000000	
VVV	VVV	MMM	MMM	SSS	LLL	III	000	000
VVV	VVV	MMM	MMM	SSS	LLL	III	000	000
VVV	VVV	MMM	MMM	SSS	LLL	III	000	000
VVV	VVV	MMM	MMM	SSS	LLL	III	000	000
VVV	VVV	MMM	MMM	SSS	LLL	III	000	000
VVV	VVV	MMM	MMM	SSS	LLL	III	000	000
VVV	VVV	MMM	MMM	SSS	LLL	III	000	000
VVV	VVV	MMM	MMM	SSSSSSSSSSSS	LLLLLLLLLLLLLLLL	IIIIIIII	0000000000	
VVV	VVV	MMM	MMM	SSSSSSSSSSSS	LLLLLLLLLLLLLLLL	IIIIIIII	0000000000	
VVV	VVV	MMM	MMM	SSSSSSSSSSSS	LLLLLLLLLLLLLLLL	IIIIIIII	0000000000	

```

JJ      JJ  PPPPPPP  IIIIII  TTTTTTTTTT  AAAAAA  BBBB8888  LL      EEEEEEEEE
JJ      JJ  PPPPPPP  IIIIII  TTTTTTTTTT  AAAAAA  BBBB8888  LL      EEEEEEEEE
JJ      JJ  PP      PP  II      TT      AA      AA  BB      BB  LL      EE
JJ      JJ  PP      PP  II      TT      AA      AA  BB      BB  LL      EE
JJ      JJ  PP      PP  II      TT      AA      AA  BB      BB  LL      EE
JJ      JJ  PP      PP  II      TT      AA      AA  BB      BB  LL      EE
JJ      JJ  PPPPPPP  IIIIII  TTTTTTTTTT  AAAAAA  BBBB8888  LL      EEEEEEEEE
JJ      JJ  PPPPPPP  IIIIII  TTTTTTTTTT  AAAAAA  BBBB8888  LL      EEEEEEEEE
JJ      JJ  PP      PP  II      TT      AA      AA  BB      BB  LL      EE
JJ      JJ  PP      PP  II      TT      AA      AA  BB      BB  LL      EE
JJ      JJ  PP      PP  II      TT      AA      AA  BB      BB  LL      EE
JJJJJJ  JJ  PP      PP  IIIIII  TTTTTTTTTT  AAAAAA  BBBB8888  LLLLLLLLLL  EEEEEEEEE
JJJJJJ  JJ  PP      PP  IIIIII  TTTTTTTTTT  AA      AA  BBBB8888  LLLLLLLLLL  EEEEEEEEE

```

```

MM      MM  AAAAAA  RRRRRRRR
MM      MM  AAAAAA  RRRRRRRR
MMMM  MMMM  AA      AA  RR      RR
MMMM  MMMM  AA      AA  RR      RR
MM  MM  MM  AA      AA  RR      RR
MM  MM  MM  AA      AA  RRRRRRRR
MM  MM  MM  AA      AA  RRRRRRRR
MM  MM  MM  AAAAAA  RR  RR
MM  MM  MM  AAAAAA  RR  RR
MM  MM  MM  AA      AA  RR      RR
MM  MM  MM  AA      AA  RR      RR
MM  MM  MM  AA      AA  RR      RR
MM  MM  MM  AA      AA  RR      RR

```

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AUTHOR: Ken Henderson CREATION DATE: 10 Feb 1983

V03-010	MSH0067	Michael S. Harvey	19-Jul-1984	
	Add JPIS_MAXDETACH, _MAXJOB and _SHRFILLM.			
V03-009	HWS0056	Harold Schultz	11-Apr-1984	
	Add JPIS_MASTER_PID.			
V03-008	CWH3008	CW Hobbs	20-Mar-1984	
	Add JPIS_PROC_INDEX			
V03-007	MSH0010	Michael S. Harvey	16-Feb-1984	
	Add JPIS_TABLENAME			
	Add JPIS_CREPRC_FLAGS			
	Add JPIS_UAF_FLAGS			
V03-006	ACG0385	Andrew C. Goldstein,	29-Dec-1983	16:23
	Add JPIS_JOBTYPE item			
V03-005	KFH0004	Ken Henderson	10 Sep 1983	
	Added CLINAME itemcode.			
	Added MODE, removed bit item-codes for			
	PCBSL_STS since they're defined in SYSDEF.			
V03-004	KFH0003	Ken Henderson	23 Mar 1983	

Added PHDFLAGS.

V03-003 KFH0002 Ken Henderson 1 Mar 1983
Added item-codes for every bit in
PCBSL_STS. And modified calls to
JPI_ITEM_CODE macro. (some parameters
added and renamed)

V03-002 CWH1002 CW Hobbs 25-Feb-1983
Modify JPIS_PID and JPIS_OWNER to return extended pids from
PCBSL_EPID and PCBSL_EOWNER.

V03-001 KFH0001 Ken Henderson 10 Feb 1983
Added JPIS_MSGMASK item-code.

.MACRO JPI_GENERATE_TABLE

```

++
ABSTRACT:
JPI_GENERATE_TABLE macro

This macro expands to generate multiple calls to the JPI_ITEM_CODE macro,
which must be previously locally defined in the module which invokes
JPI_GENERATE_TABLE.

The parameters that are passed to the JPI_ITEM_CODE macro follow:

BASE          determines which EXESGETJPI table to use. It's
               tables correspond roughly to the source of the data.
               The legal parameter values are:
               ADR, CTL, PCB, PHD, PCBFLD, PHDFLD

NAME          is the name of the SYSSGETJPI item-code.
               The legal parameter values here are determined by
               the $JPIDEF macro (in [VMSLIB.SRC]STARDEFFL.SDL).

SOURCE        is either an address of a cell, or an offset into
               a data structure.

DTYPE         is both a datatype and a usage indicator.
               The legal values and examples for this parameter follow:

               STDTIM (CTL$GQ_LOGIN)          64 bit time
               STDUIC (PCBSL_OIC)             user ID code
               HEXNUM (CTL$AQ_EXCVEC)          hex number
               DECNUM (PCBSL_BYTLM)            decimal number
               PRVMSK (PHDSQ_PRIVMSK)          privilege mask
               PRTMSK (UCBSW_VPROT)            protection mask
               STRDSC (CTL$GL_IMGHDRBF)        string descr
               CNTSTR (PCBST_TERMINAL)          counted string (max=255)
               PADSTR (JIBST_ACCOUNT)          blank padded str
               BITVEC (PCBSL_STS)              bit vector
               BITVAL (JIBSV_TERMDIAL)         boolean quantity
               ACPTYP (AQBSB_ACPTYP)           ACP type

BITPCS        is the bit position for BITVAL data items.

BITSIZ        is the bit size for BITVAL data items.

OUTLEN        is used by EXESGETJPI in fetching information (number
               of bytes).

STRUCT        is the user's data structure containing the information.
               (which is sometimes different than BASE)

```

; Define Entries to ADRTBL

; BASE, NAME, SOURCE, DTYPE, BITPOS, BITSIZ, OUTLEN, STRUCT

; address of exception vectors

JPI_ITEM_CODE -
ADR, EXCVEC, CTL\$AQ_EXCVEC, HEXNUM, 0, 0, 8, ADR

; address of final exception vectors

JPI_ITEM_CODE -
ADR, FINALEXC, CTL\$AL_FINALEXC, HEXNUM, 0, 0, 4, ADR

; Define Entries to CTLTBL

; BASE, NAME, SOURCE, DTYPE, BITPOS, BITSIZ, OUTLEN, STRUCT

; peak virtual size

JPI_ITEM_CODE -
CTL, VIRTPEAK, CTL\$GL_VIRTPEAK, DECNUM, 0, 0, 4, CTL

; peak working set size

JPI_ITEM_CODE -
CTL, WSPEAK, CTL\$GL_WSPEAK, DECNUM, 0, 0, 4, CTL

; username string

JPI_ITEM_CODE -
CTL, USERNAME, JIB\$T_USERNAME, PADSTR, 0, 0, 12, JIB

; account name string

JPI_ITEM_CODE -
CTL, ACCOUNT, JIB\$T_ACCOUNT, PADSTR, 0, 0, 8, JIB

; quadword process privileges

JPI_ITEM_CODE -
CTL, PROCPRIV, CTL\$GQ_PROCPRIV, PRVMSK, 0, 0, 8, CTL

; number of volumes mounted

JPI_ITEM_CODE -
CTL, VOLUMES, CTL\$GL_VOLUMES, DECNUM, 0, 0, 4, CTL

; process creation time

JPI_ITEM_CODE -
CTL, LOGINTIM, CTL\$GQ_LOGIN, STDTIM, 0, 0, 8, CTL

; image header buffer address which is used to get image name

JPI_ITEM_CODE -
CTL, IMAGNAME, CTL\$GL_IMGHDRBF, STRDSC, 0, 0, 4, CTL

; Per-process site-specific cell

JPI_ITEM_CODE -
CTL, SITESPEC, CTL\$GL_SITESPEC, DECNUM, 0, 0, 4, CTL

; Default message mask

JPI_ITEM_CODE -
CTL, MSGMASK, CTL\$GB_MSGMASK, BITVEC, 0, 0, 1, CTL

; command language interpreter name

JPI_ITEM_CODE -
CTL, CLINAME, CTL\$GT_CLINAME, CNTSTR, 0, 0, 40, CTL

; command language interpreter table name

JPI_ITEM_CODE -
CTL, TABLENAM, CTL\$GT_TABLENAM, CNTSTR, 0, 0, 255, CTL

; flags in \$CREPRC which created this process

JPI_ITEM_CODE -
CTL, CREPRC_FLAGS, CTL\$GL_CREPRC_FLAGS, BITVEC, 0, 0, 4, CTL

; flags from user's UAF record

JPI_ITEM_CODE -
CTL, UAF_FLAGS, CTL\$GL_UAF_FLAGS, BITVEC, 0, 0, 4, CTL

; maximum number of detached processes for a single username

JPI_ITEM_CODE -
CTL, MAXDETACH, JIB\$W_MAXDETACH, DECNUM, 0, 0, 2, JIB

; maximum number of active processes for a single username

JPI_ITEM_CODE -
CTL, MAXJOBS, JIB\$W_MAXJOBS, DECNUM, 0, 0, 2, JIB

; maximum number of open shared files

JPI_ITEM_CODE -
CTL, SHRFILLM, JIB\$W_SHRFLIM, DECNUM, 0, 0, 2, JIB

; Define Entries to PCBIBL

;BASE, NAME, SOURCE, DTYPE, BITPOS, BITSIZ, OUTLEN, STRUCT

; access modes with active ASTs

JPI_ITEM_CODE -
PCB, ASTACT, B_ASTACT, BITVEC, 0, 0, 1, PCB

; access modes with ASTs enabled

JPI_ITEM_CODE -
PCB, ASTEN, B_ASTEN, BITVEC, 0, 0, 1, PCB

; current process priority

JPI_ITEM_CODE -
PCB, PRI, B_PRI, DECNUM, 0, 0, 1, PCB

; PID of creator

JPI_ITEM_CODE -
PCB, OWNER, L_EOWNER, HEXNUM, 0, 0, 4, PCB

; UIC of process

JPI_ITEM_CODE -
PCB, UIC, L_UIC, STDUIC, 0, 0, 4, PCB

; group field of UIC

JPI_ITEM_CODE -
PCB, GRP, W_GRP, DECNUM, 0, 0, 2, PCB

; member field of UIC

JPI_ITEM_CODE -
PCB, MEM, W_MEM, DECNUM, 0, 0, 2, PCB

; process status

JPI_ITEM_CODE -
PCB, STS, L_STS, BITVEC, 0, 0, 4, PCB

; process state

JPI_ITEM_CODE -
PCB, STATE, W_STATE, DECNUM, 0, 0, 2, PCB

; process base priority

JPI_ITEM_CODE -
PCB, PRIB, B_PRIB, DECNUM, 0, 0, 1, PCB

; active page table count

JPI_ITEM_CODE -
PCB, APTCNT, W_APTCNT, DECNUM, 0, 0, 2, PCB

; termination mailbox unit

JPI_ITEM_CODE -
PCB, TMBU, W_TMBU, DECNUM, 0, 0, 2, PCB

; global page count in ws

JPI_ITEM_CODE -

PCB,	GPGCNT,	W_GPGCNT,	DECNUM, 0,	0,	2,	PCB
; process page count in ws						
JPI_ITEM_CODE -						
PCB,	PPGCNT,	W_PPGCNT,	DECNUM, 0,	0,	2,	PCB
; ast count remaining						
JPI_ITEM_CODE -						
PCB,	ASTCNT,	W_ASTCNT,	DECNUM, 0,	0,	2,	PCB
; buffered I/O count remaining						
JPI_ITEM_CODE -						
PCB,	BIOCNT,	W_BIOCNT,	DECNUM, 0,	0,	2,	PCB
; buffered I/O limit						
JPI_ITEM_CODE -						
PCB,	BIOLM,	W_BIOLM,	DECNUM, 0,	0,	2,	PCB
; buffered I/O byte count remaining						
JPI_ITEM_CODE -						
PCB,	BYTCNT,	L_BYTCNT,	DECNUM, 0,	0,	4,	JIB
; direct I/O count remaining						
JPI_ITEM_CODE -						
PCB,	DIOCNT,	W_DIOCNT,	DECNUM, 0,	0,	2,	PCB
; direct I/O count limit						
JPI_ITEM_CODE -						
PCB,	DIOLM,	W_DIOLM,	DECNUM, 0,	0,	2,	PCB
; enqueue count remaining						
JPI_ITEM_CODE -						
PCB,	ENQCNT,	W_ENQCNT,	DECNUM, 0,	0,	2,	JIB
; enqueue count limit						
JPI_ITEM_CODE -						
PCB,	ENQLM,	W_ENQLM,	DECNUM, 0,	0,	2,	JIB
; open file count remaining						
JPI_ITEM_CODE -						
PCB,	FILCNT,	W_FILCNT,	DECNUM, 0,	0,	2,	JIB
; count remaining of time queue entries						
JPI_ITEM_CODE -						
PCB,	TQCNT,	W_TQCNT,	DECNUM, 0,	0,	2,	JIB
; event flag wait mask						
JPI_ITEM_CODE -						
PCB,	EFWM,	L_EFWM,	BITVEC, 0,	0,	4,	PCB
; local event flags 0-31						
JPI_ITEM_CODE -						
PCB,	EFCS,	L_EFCS,	BITVEC, 0,	0,	4,	PCB
; local event flags 32-64						
JPI_ITEM_CODE -						

PCB,	EFCU,	L_EFCU,	BITVEC, 0,	0,	4,	PCB
; process identification						
JPI_ITEM_CODE -						
PCB,	PID,	L_EPID,	HEXNUM, 0,	0,	4,	PCB
; buffered I/O byte count limit						
JPI_ITEM_CODE -						
PCB,	BYTLM,	L_BYTLM,	DECNUM, 0,	0,	4,	JIB
; subprocess count						
JPI_ITEM_CODE -						
PCB,	PRCNT,	W_PRCNT,	DECNUM, 0,	0,	2,	PCB
; total subprocess count in job						
JPI_ITEM_CODE -						
PCB,	JOBPRCNT,	W_PRCNT,	DECNUM, 0,	0,	2,	JIB
; process name string						
JPI_ITEM_CODE -						
PCB,	PRCNAM,	T_LNAME,	CNTSTR, 0,	0,	16,	PCB
; login terminal name						
JPI_ITEM_CODE -						
PCB,	TERMINAL,	T_TERMINAL,	CNTSTR, 0,	0,	8,	PCB
; swap file backing store address						
JPI_ITEM_CODE -						
PCB,	SWPFILLOC,	L_WSSWP,	HEXNUM, 0,	0,	4,	PCB
; process mode						
JPI_ITEM_CODE -						
PCB,	MODE,	L_STS,	DECNUM, 0,	0,	4,	PCB
; job type code						
JPI_ITEM_CODE -						
PCB,	JOBTYPE,	B_JOBTYPE,	DECNUM, 0,	0,	1,	JIB
; process index code - unique id for process						
JPI_ITEM_CODE -						
PCB,	PROC_INDEX,	L_PID,	DECNUM, 0,	0,	1,	PCB
; PID of master process in a job.						
JPI_ITEM_CODE -						
PCB,	MASTER_PID,	L_MPID,	HEXNUM, 0,	0,	4,	JIB


```

; Define entries to PHDTBL

```

```

; BASE, NAME, SOURCE, DTYPE, BITPOS, BITSIZ, OUTLEN, STRUCT

```

```

; quadword current privilege mask

```

```

JPI_ITEM_CODE -
PHD, CURPRIV, Q_PRIVMSK, PRVMSK, 0, 0, 8, PHD

```

```

; current working set size

```

```

JPI_ITEM_CODE -
PHD, WSSIZE, W_WSSIZE, DECNUM, 0, 0, 2, PHD

```

```

; authorized working set size

```

```

JPI_ITEM_CODE -
PHD, WSAUTH, W_WSAUTH, DECNUM, 0, 0, 2, PHD

```

```

; quota on working set size

```

```

JPI_ITEM_CODE -
PHD, WSQUOTA, W_WSQUOTA, DECNUM, 0, 0, 2, PHD

```

```

; maximum extent on working set

```

```

JPI_ITEM_CODE -
PHD, WSEXTENT, W_WSEXTENT, DECNUM, 0, 0, 2, PHD

```

```

; authorized working set extent

```

```

JPI_ITEM_CODE -
PHD, WSAUTHEXT, W_WSAUTHEXT, DECNUM, 0, 0, 2, PHD

```

```

; default working set size

```

```

JPI_ITEM_CODE -
PHD, DFWSCNT, W_DFWSCNT, DECNUM, 0, 0, 2, PHD

```

```

; first free addr. at end of P0 space

```

```

JPI_ITEM_CODE -
PHD, FREPOVA, L_FREPOVA, HEXNUM, 0, 0, 4, PHD

```

```

; first free addr. at end of P1 space

```

```

JPI_ITEM_CODE -
PHD, FREP1VA, L_FREP1VA, HEXNUM, 0, 0, 4, PHD

```

```

; available pages for expansion

```

```

JPI_ITEM_CODE -
PHD, FREPTECNT, L_FREPTECNT, DECNUM, 0, 0, 4, PHD

```

```

; default page fault cluster

```

```

JPI_ITEM_CODE -
PHD, DFPFC, B_DFPFC, DECNUM, 0, 0, 1, PHD

```

```

; process cputime accumulated

```

```

JPI_ITEM_CODE -
PHD, CPUTIM, L_CPUTIM, DECNUM, 0, 0, 4, PHD

```

```

; subprocess quota

```

```

JPI_ITEM_CODE -

```

PHD,	PRCLM,	W_PRCLIM,	DECNUM, 0,	0,	2,	JIB
; ast limit						
JPI_ITEM_CODE -						
PHD,	ASTLM,	W_ASTLM,	DECNUM, 0,	0,	2,	PHD
; process accumulated faults						
JPI_ITEM_CODE -						
PHD,	PAGEFLTS,	L_PAGEFLTS,	DECNUM, 0,	0,	4,	PHD
; accumulated direct I/Os						
JPI_ITEM_CODE -						
PHD,	DIRIO,	L_DIOCNT,	DECNUM, 0,	0,	4,	PHD
; accumulated buffered I/Os						
JPI_ITEM_CODE -						
PHD,	BUFIO,	L_BIOCNT,	DECNUM, 0,	0,	4,	PHD
; limit on cputime						
JPI_ITEM_CODE -						
PHD,	CPULIM,	L_CPULIM,	DECNUM, 0,	0,	4,	PHD
; max. virtual page count						
JPI_ITEM_CODE -						
PHD,	PGFLQUOTA,	L_PGFLQUOTA,	DECNUM, 0,	0,	4,	JIB
; current paging file usage						
JPI_ITEM_CODE -						
PHD,	PAGFILCNT,	L_PGFLCNT,	DECNUM, 0,	0,	4,	JIB
; open file limit						
JPI_ITEM_CODE -						
PHD,	FILLM,	W_FILLM,	DECNUM, 0,	0,	2,	JIB
; limit on time queue entries						
JPI_ITEM_CODE -						
PHD,	TQLM,	W_TQLM,	DECNUM, 0,	0,	2,	JIB
; authorized privilege mask						
JPI_ITEM_CODE -						
PHD,	AUTHPRIV,	Q_AUTHPRIV,	PRVMSK, 0,	0,	8,	PHD
; installed image privilege mask						
JPI_ITEM_CODE -						
PHD,	IMAGPRIV,	Q_IMAGPRIV,	PRVMSK, 0,	0,	8,	PHD
; authorized base priority						
JPI_ITEM_CODE -						
PHD,	AUTHPRI,	B_AUTHPRI,	DECNUM, 0,	0,	1,	PHD
; page file backing store address						
JPI_ITEM_CODE -						
PHD,	PAGFILLOC,	L_PAGFIL,	HEXNUM, 0,	0,	4,	PHD
; image counter (clocked by RUNDOWN)						
JPI_ITEM_CODE -						


```
PHD, IMAGECOUNT, L_IMGCNT, DECNUM, 0, 0, 4, PHD
```

```
; flags word  
JPI_ITEM CODE -
```

```
PHD, PHDFLAGS, W_FLAGS, BITVEC, 0, 0, 2, PHD
```

```
:::::::::::::::::::::::::::::::  
; Define entries to PCBFLDTBL
```

```
;BASE, NAME, SOURCE, DTYPE, BITPOS, BITSIZ, OUTLEN, STRUCT
```

```
:::::::::::::::::::::::::::::::  
; Define entries to PHDFLDTBL
```

```
;BASE, NAME, SOURCE, DTYPE, BITPOS, BITSIZ, OUTLEN, STRUCT
```

```
.ENDM JPI_GENERATE_TABLE
```


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VAX/VMS V4.0

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